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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,765	12/29/2000	Robert A. Wiedeman	900.0020USU	5071

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EXAMINER

SMITH, SHEILA B

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/751,765

Applicant(s)

WIEDEMAN ET AL.

Examiner

Sheila B. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 26 is/are allowed.
- 6) ☐ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. In view of the Appeal Brief filed on 3/9/06, PROSECUTION IS HEREBY REOPENED.

A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Joseph Field.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 7, 19-25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steer (U.S. Patent Number 6,643,517).

Regarding claims 1, 7, 19-25, Steer discloses essentially all the claimed invention as set forth in the instant application, further Steer discloses a method of using location information for interference protection. In addition Steer discloses a method for operating a mobile satellite communication system (which reads on GPS) having at least one gateway (7), at least one user terminal (10,11), comprising steps of: for a site to be protected from UT transmissions, specifying an exclusion zone (which reads on column 3 lines 19-24) associated therewith; and selectively providing service to a UT (10,11) depending on a determined location of the UT relative to the exclusion zone (which reads on column 3 lines 48-60) and on an estimate of the determined UT location (which reads on column 3 lines 50-55). However, Steer fails to specifically disclose (a) the use of a constellation of satellites and (b) a confidence limit (CL) and the estimated error (E).

The examiner contends, however, that (a) the use of a constellation of satellites is well known in the art and at the time of the invention it would have been obvious to a person of ordinary skill in the art to improve Steer by modifying the system and method for invoking barring features in a satellite network with a constellation of satellites for the purpose of operating a satellite communication system.

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In the same field of endeavor, Martti et al. discloses a method for determining a confidence limit. In addition Martti et al. discloses the use of (b) a confidence limit and estimated error (which reads on column 1 lines 60-67 and column 2 lines 1-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Alperovich et al. by modifying the a position location system with a confidence limit and estimated error as taught by Martti et al. for the purpose of setting the target value.

3. Claims 2-6, 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steer in view of Maeda et al. (U.S. Patent Number 6,352,222).

Regarding claims 2,6,8,9, Steer discloses everything claimed as applied above (*see claim 1*) however, Steer fails to specifically discloses the use of the exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume, or a surface.

In the same field of endeavor, Maeda et al. discloses a satellite, satellite control method and satellite communication system. In addition Maeda et al. discloses the use of a exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume, or a surface (which reads on this as to form such a polygon that includes all the service areas, as disclosed in column 10 lines 37-39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Steer by modifying the a position location system with the exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume,

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or a surface as taught by Maeda et al. for the purpose of setting the initial value for the orbital inclination angle.

Regarding claims 3-5, Steer discloses everything claimed as applied above (see claim 1), in addition Steer discloses a location of the UT (10) is determined by the UT (10), and transmitted to the GW (7) as disclosed in column 4 lines 45-67.

Regarding claim 10, Steer discloses everything claimed as applied above (see claim 1), in addition Steer discloses the exclusion zone is specified to comprise a surface defined by at least two connected points on the surface of the earth and at least point located above the surface of the earth as disclosed in column 5 lines 4-15.

Regarding claims 11-12, Steer discloses everything claimed as applied above (see claim 1), in addition Steer discloses boundaries of the exclusion zone are static as disclosed in column 5 lines 4-15.

4. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steer in view of Maeda et al. and further in view of Ishikawa et al. (U.S. Patent Number 6,332,069).

Regarding claims 13-18, Steer in view of Maeda et al. discloses everything claimed as applied above (*see claim 1*) however, Steer in view of Maeda et al. fails to specifically disclose the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the UT.

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In the same field of endeavor, Ishikawa et al. discloses a method for determining position of mobile earth station in satellite communication system. In addition Ishikawa et al. discloses the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the GW (which reads on t is possible to perform high accuracy position determination by estimating and compensating for the timing error arising from instability in the accuracy of the clock of the mobile earth station and the frequency error resulting from instability of the frequency oscillator of the mobile earth station, as disclosed in column 6 lines 10-20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Steer in view of Maeda et al. with the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the UT as taught by Ishikawa et al. for the purpose of determine the estimated position of the mobile earth station relative to its true position.

Allowable Subject Matter

5. Claim 26 is allowed.

Response to Arguments

6. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S. Smith

January 20, 2007


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER